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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/788,420 | 02/21/2001 | Oh Nam Kwon | 8733.388.00 | 5851 |

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EXAMINER

WANG, GEORGE Y

ART UNIT PAPER NUMBER

2871

DATE MAILED: 07/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/788,420

Applicant(s)

KWON ET AL.

Examiner

George Y. Wang

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 11-26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 February 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Claims 1-10 in Paper No. 7 is acknowledged.

Claim Objections

2. Claim 10 is objected to because it includes the limitation of a "second" semiconductor layer. However, neither claim 10 nor claim 1, to which it is dependent upon, claims a "first" semiconductor layer. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Wakai et al. (U.S. Patent No. 5,055,899, from hereinafter "Wakai").

5. As to claim 1, Wakai discloses a liquid crystal display (LCD) device having a substrate (fig. 8, ref. 101), a first conductive layer (fig. 8, ref. 102) on the substrate, a first insulating layer (fig. 8, ref. 103) on the first conductive layer, a second conductive layer (fig. 8, ref. 104) on the first insulating layer, a third conductive layer (fig. 8, ref. 106a, 107a) on the second conductive layer, a second insulating layer (fig. 8, ref. 118) on the third conductive layer, the second insulating layer having a hole (fig. 8, ref. 105) exposing a portion of the third conductive layer, a fourth conductive layer (fig. 8, ref. 110) on the second insulating layer and electrically contacting the third conductive layer, and a fifth conductive layer (fig. 8, ref. 106b, 107b) between the third and fourth conductive layers.
6. Regarding claims 2-3, Wakai discloses an LCD device as recited above where the first conductive layer includes aluminum metal (col. 14, line 47-50).
7. As per claim 4, Wakai discloses an LCD device as recited above where the second conductive layer includes a semiconductor (abstract).
8. As to claims 5-6, Wakai discloses an LCD device as recited above where the third conductive layer has a first and second parts that include metal (col. 5, lines 49-57) and in between the first and second parts is where the semiconductor is etched (fig. 8, ref. 104; col. 5, lines 49-52).

Art Unit: 2871

9. Regarding claim 7, Wakai discloses an LCD device as recited above where the fourth conductive layer includes a transparent electrode (col. 4, lines 56-59).

10. As to claims 8-9, Wakai discloses an LCD device as recited above where the fifth conductive layer includes conductive metal such as Cr (col. 4, lines 40-43).

11. As per claim 10, Wakai discloses an LCD device as recited above further having a second semiconductor layer (abstract) formed between the first insulating layer and the second conductive layer.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Y. Wang whose telephone number is 703-305-7242. The examiner can normally be reached on M-F, 8 am - 4:30 pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on 703-305-3492. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Application/Control Number: 09/788,420
Art Unit: 2871

Page 5

gw
July 11, 2003


ROBERT H. KIM
SUPERVISORY PATENT EXAMINER
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